Testing the Current

By Charles Platt

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VOODOO SCIENCE
The Road From Foolishness to Fraud
By Robert L. Park
Oxford Univ. 230 pp. $25

For almost two decades, former physicist Robert Park has conducted a one-man search-and-destroy mission against inventors, scientists and pseudoscientists who make claims that he describes as "totally, indisputably, extravagantly wrong." As a Washington lobbyist and PR flack for the American Physical Society, Park is widely quoted whenever journalists need a rebuttal source who will scoff pithily at concepts such as magnetic healing or antigravity. He helped to establish a prestigious study panel that debunked Ronald Reagan's Star Wars Strategic Defense Initiative, and campaigned to discredit New Yorker journalist Paul Brodeur, who warned of possible health hazards caused by electromagnetic radiation from power lines. These and other battles are retold in Park's new book, Voodoo Science, which denounces the culprits he has most loved to hate over the years.

This book could have served a useful purpose. If public funds or private-investment capital really are being squandered by researchers who are self-deluded or even fraudulent, we need a thorough investigation. Alas, thoroughness is not Park's strong suit.

His primary source of information, quoted repeatedly in many of his rants, is the nightly TV news. Nothing seems to enrage him more than the sight of some upstart inventor getting air time for results that don't make sense; and Park's anger permeates his rebuttals, which border on character assassination. He contemptuously dismisses scientist James Patterson, for example, as a "caricature of an inventor" purely because of his physical appearance. There's no mention of his claim to fame as codeveloper of the fundamental laboratory technique of gas chromatography or his past consultancy work for Dow Chemical, Fairchild Semiconductor, Lockheed and the Atomic Energy Commission. Nor does Park allow Patterson any chance to explain or defend his work. In fact, none of the targets in Voodoo Science is allowed to speak for himself, apparently because Park chose not to talk to any of them.

This armchair journalism leads to some blunders. For instance, he mocks credentialed NASA scientists for investigating a gravity-shielding effect that he feels would violate a basic law of thermodynamics. If he had spoken to the researchers, they might have told him (as they told other journalists) why their theories entail no conflict with thermodynamics at all. Also, Park might have learned that the Russian emigre who prompted this work is not an obscure physicist (as he states) but a materials scientist claiming authorship of 30 papers and 10 patents.

Park's failure to gather first-hand data is unfortunate, but his selective omissions are far more serious. In at least one case, he violates basic principles of journalism and science itself by apparently suppressing information that conflicts with his foregone conclusion. He dismisses the phenomenon of nuclear fusion at low temperatures as "no closer to being proven than it was the day it was announced," despite hundreds of papers, including many from scientists affiliated with respected

universities, going far beyond the controversial claims that were made for "cold fusion" in 1989. Electrochemist Michael McKubre, at SRI International, confirms that he has submitted his papers to Park, who also attended a conference last year including presentations on this topic. Park chooses to mention none of this.

Such tactics are reminiscent of the behavior of a zealous DA who is so convinced that a suspect is guilty that he feels entitled to withhold some information from the jury. Since Park also "convicts" his suspects almost entirely by paraphrasing them in his own words, Voodoo Science is not the fair trial we might have hoped for.

This is unfortunate, because many of Park's targets have indeed made implausible claims, and may be guilty as charged. To be sure of this, however, we need a fairly argued refutation, not a perfunctory dismissal. The dividing line between valid data and artifacts is not always clear; the phenomenon of superconductivity, for instance, remained inexplicable for 42 years, as Park himself admits.

Despite Park's absolute faith in his own judgment, any rush to judgment entails a risk of convicting innocent people, while search-and-destroy missions may tend to cause collateral damage. This is a serious matter, since even poorly documented vitriol can jeopardize a scientist's reputation and future funding if it is disseminated with the complicity of a respected organization such as the American Physical Society.

Of course, so long as Park makes no mistakes, he may argue that his targets deserve their punishment. Still, his widely published attacks create a chilling effect that can discourage even legitimate scientists from discussing controversial work. This hardly seems consistent with the spirit of genuinely free inquiry that should energize science. Likewise, Park's reliance on second-hand data, his presentation of selective evidence and his refusal to quote his opponents are habits that seem unworthy of a scientist.

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